

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR 4 — CHART INFORMATION

SECTOR 4

STRAIT OF CANSO—CAPE CANSO TO CAPE NORTH

Plan.—This sector describes the approaches and sea area of the Strait of Canso, including Chedabucto Bay and Isle Madame to the E, and St. Georges Bay and the NW coast of Cape Breton Island to the N. The general arrangement is from S to N from Cape Canso to Cape North, via the strait and St. Georges Bay.

General Remarks

4.1 The Strait of Canso separates Cape Breton Island from the mainland of Nova Scotia and is navigable by vessels wishing to proceed from the Atlantic Ocean to the S part of the Gulf of St. Lawrence. A stone causeway, carrying road and rail traffic, crosses the strait near its N end and because of tidal differences is fitted with a navigation lock which limits drafts to about 8.5m.

The S approach to the strait is through Chedabucto Bay and the N approach is through St. Georges Bay. Due to an adjustment of chart datum in the areas S of Canso Causeway and E to a line between Guyon Island and Cape Canso, and to seaward of the St. Peters Canal, 0.4m must be added to all charted depths.

Winds—Weather.—Canso Strait and Chedabucto Bay are protected from the prevailing westerlies of winter and the SW winds of summer.

The NW coast of Cape Breton Island suffers from strong W gales which during winter send in a heavy breaking sea. In summer this coast is generally protected, with only SW breezes raising any sea.

Fog occurs with a frequency of 10 to 15 percent in the months of May, June, and July. When Chedabucto Bay is fog bound, Canso Strait is nearly clear.

The incidence of fog in St. Georges Bay and along the NW coast of Cape Breton Island runs slightly higher and may reach 25 percent in the spring and summer months.

Ice.—Because of ice, navigation is suspended from about the beginning of January to the end of April in the N part of Canso Strait. As the causeway blocks the flow of ice from the N, navigation in the S part of the strait is possible during the greater part of the year.

The deep water terminal at **Wright Point** (45°35'N., 61°21'W.) remains open throughout the year and ice is usually not a problem.

Chedabucto Bay has pack ice from February to April, with drift ice occurring in May. Navigation is generally not affected with larger ships, but small vessels may have considerable difficulty in mid-winter.

Pack ice and heavy floes may occur along the NW coast of Cape Breton Island from January to April, with considerable amounts of drift ice in May.

The Ice Advisory and Shipping Support Service is provided from mid-December to the end of the ice season. Certain buoys in Chedabucto Bay and the Strait of Canso may be removed during the ice season.

Tides—Currents.—Off Chedabucto Bay there is a general SW drift throughout the year with a rate of 0.25 to 0.5 knot. Within the bay and in Canso Strait the currents are slight or non-existent.

An E current of about 1 knot sets down on the NW coast of Cape Breton Island and being a branch of the Gaspé Current, maintains its direction throughout the year.

Traffic Separation Scheme.—Traffic Separation Schemes are established for entering and leaving Chedabucto Bay, St. Georges Bay, and the approaches to the Strait of Canso. The traffic routes are clearly defined on the appropriate charts and are compulsory in their use.

The seaward end of the Chedabucto Bay lane is marked by a racon fairway buoy and inbound vessels should pass to its N and those outbound should pass to the S.

The Strait of Canso and Eastern Approaches Vessel Traffic Services (VTS) Zone comprises all Canadian waters S of the Canso Canal north lock gate (45°39'N., 61°25'W.) and between a line bearing 181° from 45°24.2'N, 60°29.73'W, then along the Territorial Sea Boundary in a SW direction to 45°18.6'N, 60°35.1'W, then W to Cape Canso (45°18.2'N., 60°56.3'W.).

Participation is mandatory, as follows:

1. All vessels of 20m or more in length.
2. Vessels engaged in towing or pushing where the combined length of the ship and any vessel or object towed or pushed by the ship is 45m or more in length.
3. Vessels engaged in towing or pushing where the length of the vessel or object being towed or pushed by the ship is 20m or more in length.
4. Air cushion vehicles of 8m or more in length.

In accordance with the VTS Zone Regulations, vessels shall make reports:

- a. 15 minutes prior to their estimated time of arrival at the eastern limit of the Zone;
- b. 15 minutes prior to their estimated time of arrival at the north wall of the Canso Canal, and;
- c. When passing the designated Calling-in-Points. The station identifier of the Canso VTS Centre is "Canso Traffic," and can be contacted on VHF channel 14. Operations are conducted 24 hours a day.

Approaches to Chedabucto Bay

4.2 Cape Canso (45°18'N., 60°56'W.) is a rocky island about 4m high that is joined to the E end of Andrew Island at LW by a sandy neck. Reefs and rocks extend nearly 0.5 mile E of Cape Canso.

Canso Ledges, consisting of a number of shoals with deep water surrounding them, extend up to 4 miles NE of Cape Canso. Grime Rock and Bass Shoal are the outermost of these dangers, and as they lie near the turning point for Chedabucto Bay, can be very dangerous to vessels proceeding off this coast in fog.

Grime Rock (45°21'N., 60°53'W.), with a depth of less than 1.8m, lies about 3.8 miles NE of Cape Canso. Shoals, with a

least known depth of 5.5m, lie up to 0.5 mile farther E of the rock. A lighted whistle buoy lies about 1.5 miles E of the rock.

Bass Rock, which dries 0.3m, lies about 0.4 mile SSW of Grime Rock.

Cranberry Islands (45°20'N., 60°56'W.), low, rocky, and divided into several parts at HW, are marked on their S side by a light, 15m high with racon, shown from a white square tower.

A submerged power cable lies between Cranberry Islands and Lanigan Beach, S of Piscatiqui Island. Its position can best be seen on the chart.

Caution.—When approaching Cape Canso from seaward, or when rounding the ledges for Chedabucto Bay, especially in thick weather, it is recommended that the racon buoy at the outer end of the separation zone be used for arrival and departure. The depths in the vicinity, of Grime Shoal Buoy are irregular and large vessels should not attempt to use the inshore zone in this vicinity as the 36.6m curve is indistinct and lies close to some of the most dangerous ledges.

4.3 Canso Harbour (45°20'N., 61°00'W.) (World Port Index No. 6100), formed within the islands of Durell and Piscatiqui, is in general use by the Nova Scotia fishing fleet and is capable of handling ocean trawlers. Imports consist of oil, salt, and general cargo. Fish is exported.

Mean spring tides rise about 1.6m, while mean neap tide rise about 1.4m. The flood tide runs N, rarely exceeding 1 knot in the N entrance to Canso, and runs S on the ebb. The harbor is open all year, but thin ice sometimes forms during the month of February. The prevailing winds are from the SW.

Depths—Limitations.—There are several wharves at the town, most of which have been dredged at their outer ends to depths of 1.8 to 5.8m. A small turning basin dredged to a depth of 5.8m fronts the wharves.

Aspect.—The north approach to Canso Harbour leads between **Net Rocks** (45°21'N., 61°00'W.) and Bald Rock, about 0.5 mile ESE, and is marked at its seaward terminus by Canso Harbour Light. Two lights shown from skeleton towers on the W side of Hart Island, about 0.8 mile SE of Net Rocks, when in line bearing 170°, lead through the deeper part of the channel between Bald Rock and Bald Rock Light. A least depth of 11m can be maintained on this range and in the channel E of Hart Island, but the fairway is narrow and local knowledge is recommended.

The channel between Hart Island and Piscatiqui Island is less than 45m wide and vessels are recommended to have local knowledge.

Lanigan Range Lights should not be opened to E.

The E approach to Canso Harbour is marked by Lanigan Range Lights, in line bearing 266.5°, which lead in S of Grime Shoal lighted buoy, and between White Rock and Sand Shoal, then between Frying Pan Shoal and Budget Rock, to Grassy Island lighted buoy about 0.2 mile S of Grassy Island. The E entrance to the harbor has a least charted depth of 5.5m between the shoal water off Grave Island and the buoy marking the fairway.

The S approach to Canso Harbour lies between numerous islands and shoals, and should only be attempted in daylight during good weather and with local knowledge. Cape Breaker lighted buoy, moored about 1.5 miles E of Cape Canso, marks

the outer approach to this channel, and Canso Roman Catholic Church spire, bearing 299°, leads N of Cape Breaker, Keeper Reef, and Kirby Rock. The same bearing leads S of Black Rocks, from where vessels steer NW through the fairway for Grassy Island lighted buoy.

Pilotage.—Pilotage is not compulsory. If required, local fisherman will pilot ships, meeting them by arrangement off the harbor or on the fishing grounds outside Canso Ledges. Vessels 91m long with a draft of 6.7m can be admitted safely.

Anchorage.—There is good anchorage available in Canso Harbour in depths of 8 to 12m, but the swinging room is limited and the space is often crowded with fishing vessels.

Caution.—Great care is necessary in approaching Canso Harbour, especially in fog, as the 55m depth contour is only 0.2 mile outside some of the most dangerous ledges.

Chedabucto Bay

4.4 Durrell Island (45°21'N., 61°01'W.), located about 4 miles NW of Cape Canso, lies on the S side of the entrance to Chedabucto Bay and is marked by Flag Hill, 26m high, on its NW side.

A tower, 77.1m high and marked by red obstruction lights, stands about 3 miles WSW of the middle of Durrell Island.

Fox Island, 2.25 miles W of Durrell Island, is 12m high and connected to the mainland by a bar of sand and rock which nearly dries.

Small vessels can anchor in Fox Bay, W of Fox Island in 7.3 to 12.8m, sand, but the anchorage is insecure in N winds and E swells. Anchorage is also available in Half Island Cove, 4.5 miles W of Fox Island, but it is again insecure during NE winds.

Rook Island, marked by a light, lies 7.5 miles W of Fox Island and divides the entrance to Queensport into two channels. The W channel lies between the island and Corveau Rocks and has a least depth of 11m over a width of 0.3 mile. The E channel is narrow and more difficult. A breakwater on the NE side of the bay has a jetty about 43m long and 21m wide on its S side; there is a depth of 3m alongside the N face of the jetty and depths of 2.7 to 5.5m alongside the S and outer faces. The holding ground in the bay is good, but swinging room is limited.

Crow Cliffs, about 1.5 miles W of Rook Island, are three high cliffs of clay that mark the beginning of the coastal cliffs that extend along the S shore of Chedabucto Bay to the Salmon River, about 7 miles further W.

Bigby Head, a remarkable cliff, 33m high, lies at the head of Chedabucto Bay, about 8.5 miles W of Rook Island. Toby Cove, a small boat harbor with a depth of 1.2m in the entrance, lies close NW of the head.

An L-shaped pier, 21m long, on the S shore of the cove, has a depth of 4m alongside its head.

4.5 Guysborough Harbour (45°24'N., 61°30'W.) (World Port Index No. 6080), at the head of Chedabucto Bay, is an inlet which extends about 4 miles N to the mouth of the Guysborough River. The hills on either side are about 152m high.

There is deep water inside the entrance bar, but the channel is narrow and crooked with strong tidal currents, which often reaches a rate of 4 to 5 knots; a local pilot is strongly advised.

At times the outer bar is impassable because to heavy breakers, particularly when E swells meet the ebb tidal current.

The entrance channel into the harbor is barely 90m wide between Peart Point and Stony Patch. The outer bar, with a depth of 5.5m, sand, extends just outside the entrance from Toby Point to Hadley Beach, and breaks in heavy weather. The inner bar, with a depth of about 5.1m, extends between Eliza Point and Hadley Beach with a channel width of only 91m.

Moose Bay (Clam Harbour Bay) (45°25'N., 61°25'E.) is entered between Moose Point, about 3 miles NE of the entrance to Guysborough Harbour, and Ragged Head, about 2.3 miles further E. The bay affords anchorage in depths of about 9 to 13m, sand and mud, clear of the sand flat that extends nearly 0.5 mile from the E shore of the bay. However, it is only safe during good summer weather. Gales from the E bring in a heavy swell.

Ragged Head is a rocky peninsula which appears to be an island from seaward. It is located at the apex of a triangle, the sides being long shingle beaches enclosing Ragged Pond, which has depths of 3.7 to 9.1m. Boats can enter at HW by a narrow channel on the W side of the point.

From Ragged Head, the coast trends NW for about 7.5 miles to Red Head and presents low cliffs of sand, clay, and boulders. The shore is backed by several salt ponds which can be entered by boats at HW if the surf permits. Murdoch Head, 30m high and lying nearly midway between the two above points, has a ledge extending nearly 0.8 mile E from it, and shoal water lies up to 1 mile offshore in places.

Hydra Shoal (Big Shoal), with a depth of 3.7m, rock, lies about 1.3 miles SE of Murdoch Head and breaks in heavy E swells. There is a considerable area around this shoal, with depths of less than 9.1m. An isolated rocky pinnacle, with a depth of 16.8m, lies about 1.5 miles to the S.

Red Head (45°29'N., 61°14'W.), at the NE end of the mainland on the N side of Chedabucto Bay, is a small peninsula, 17m high, which terminates in a bare red cliff fronting the sea, and is joined to the coast by a low shingle isthmus.

Argos Shoal, mostly rock with depths of less than 11m, extends 0.75 mile E from the shore close NE of Red Head and has a least depth of 0.6m. It breaks heavily with any swell from the SE and is marked on its outer edge by a buoy.

Cape Argos (45°29'N., 61°14'W.) lies about 0.3 mile NW of Red Head. A wreck, with a depth of 8.2m, lies about 0.9 mile E of Red Head.

Isle Madame

4.6 Isle Madame forms the N side of Chedabucto Bay and also the E side of the entrance to the Strait of Canso. Several smaller islands surround Isle Madame, and Lennox Passage, available to small vessels only, separates it from Cape Breton Island.

Green Island (45°29'N., 60°54'W.) is precipitous and composed of slate. It is separated from Petit-de-Grat Island by a passage about 0.8 mile wide, which is favored by small fishing vessels, the gear of which may foul the channel. A light

is shown from a white circular tower, 11.5m high, located on the summit of the island.

Orpheus Rock lies, awash, nearly 2 miles E of Green Island and almost always breaks. Deep water surrounds it, but a rocky patch, with a depth of 9.8m, lies about 0.5 mile to the W. A buoy is moored 0.2 mile E of Orpheus Rock.

Petit Anse, a boat harbor, lies on the E side of Petit-de-Grat Island and is protected by a small breakwater with a depth of 2.1m at its outer end. Two lights, in line bearing 271.5°, shown from May 1 until December 15, lead into the harbor. The entrance channel is buoyed.

On the N side of the cove a causeway crosses Birch Island and the mainland. A public wharf, 47m long, with a depth of 0.6m at its outer end, is situated near the head of the cove.

A submarine power cable is laid between Petite Anse and Green Island.

Red Head (Cap Rouge), the SE extremity of Petit-de-Grat Island, is a conspicuous cliff 21m high. Shoal water extends up to 0.25 mile off the headland.

Petit-de-Grat Inlet, separating Petit-de-Grat Island from Isle Madame, is a small fishing harbor with a narrow buoyed entrance channel leading between the many rocks and shoals within. Depths in the channel range from 7.6m abreast Mouse Island to 3m at the head of the harbor.

A low bridge, with a reported vertical clearance of 3.3m, crosses the inlet between the villages of Petit-de-Grat and Boudreauville.

The government wharf is L-shaped, about 91m long, with an outer face 32m long, having a least depth of 2.1m. There are also several fishing wharves with depths of 1.8 to 5.2m alongside.

4.7 Cape Hogan (Cape August) (45°28'N., 61°01'W.), the S extremity of Isle Madame, is the termination of a bold headland with cliffs about 31m high. A light is exhibited from a triangular skeleton tower, about 0.3 mile E of the point.

Marache Point (45°29'N., 61°02'W.), lying about 1 mile NW of Cape Hogan, is the W end of Isle Madame and is bordered by shoal water to the N and S. A light is shown from the point.

Cerberus Rock (45°28'N., 61°06'W.), just awash and with deep water all around it, lies nearly 4 miles W of Cape Hogan Light. There are nearly always breakers or wash over this danger, and vessels approaching or departing the Strait of Canso N of the fairway must take care to avoid it. A buoy lies about 0.3 mile S of the rock.

Caution.—The wreck of the tanker "Arrow," with masts visible, lies close E of Cerberus Rock. A second part of the ship, with a depth of 2.1m, lies sunk about 0.3 mile to the NNW.

4.8 Arichat Harbour (45°31'N., 61°01'W.) (World Port Index No. 6050) is a small fishing port approached between Marache Point and Crichton Island, about 2.5 miles NW. It is used by fishing vessels up to 70m in length. The harbor is protected by Jerseyman Island, which stretches across the bay and forms two entrances. The N entrance, known as Crid Passage, is only about 90m wide, but is straight and carries a least depth of 11m. The S entrance, although considerably

wider, is encumbered with shoals of 6.4 to 10.1m and requires extensive local knowledge for any vessel of moderate draft.

The flood current enters through the S entrance and flows N and W through the harbor. The ebb current flows in the opposite direction. The velocity of the current seldom exceeds 1 knot. The tidal range is 1.8m at springs and 1.4m at neaps.

During late spring and summer, E winds are often associated with fog.

Cape Auguet Bay, in the S approach, although open to W winds and heavy swell at times, provides fairly good anchorage in 18.3 to 21.9m, mud. Vessels approaching this bay by the S entrance to Arichat Harbour must take care to clear Hautfound Shoals off Marache Point, and Henley Ledges S of Jerseyman Island.

Vessels entering Arichat Harbour by Crid Passage can take anchorage in depth of 18.3 to 21.9m, about 0.5 mile E of Beach Point light, at the extremity of Jerseyman Island.

The public pier at Arichat is L-shaped and extends from the N shore about 0.6 mile E of the Roman Catholic Church (two red-topped towers) (45°30.6'N., 61°2.9'W.) of which is very prominent. The berth on its outer face is 37m long, with a depth of 3.4m alongside. There are numerous smaller wharves in the harbor, but they are in poor repair.

4.9 Crichton Island (45°30'N., 61°06'W.), about 1 mile NW of Jerseyman Island, is connected to Isle Madame by a causeway which along with the island forms the inner part of the small harbor of West Arichat. Picard Reef extends from the S point of Crichton Island and shoal water also borders the W side of the island, terminating in Crichton Shoal, with a least depth of 2.4m.

West Arichat Harbour, on the N side of Crichton Island, is a small but secure harbor used by coasters. The approach is from the SW over a bar with a depth of 3 to 4.6m. The entrance channel and harbor are buoyed.

An public L-shaped pier, 43m long, with a berth 15m long and a depth of 1.5m at the pier head, projects S from Bodset Point on the N side of the inner harbor. A light is exhibited on the pier head.

A light is exhibited from a skeleton tower on Crichton Head, the NW point of Crichton Island. Another light is shown from a red skeleton tower on Arichat Head, about 0.8 mile S of Crichton Head. Both lights are shown from May 1 to December 15.

Janvrin Island (45°32'N., 61°10'W.) is fringed with shoals and rocks on the S and W sides. The E end of the island is connected to Isle Madame by a string of islets, some of which are bridged by causeways for road travel.

Peninsula Point, the S extremity of the island, appears as an island from seaward, with low red cliffs on its SW side. A long shingle bar unites the point with Janvrin Island. Peninsula Shoals, an extensive rocky area with depths of less than 0.9m in places, extends up to 1 mile SE of the point.

Wasting Rocks, which dry from 0.9 to 2.1m, lie on a large drying bank of sand and stone which extends SE from Janvrin Point, the SW extremity of Janvrin Island. Janvrin Shoals, with a depth of 2.1m at their outer end, are the extension of shoal water which lies up to 0.6 mile W of Janvrin Point. These dangers closely border the NE limit of the buoyed ship channel leading to the Strait of Canso.

Thomas Head, the NW extremity of Janvrin Island, is fringed by reef and rocks. Thomas Shoal, with a depth of 4.3m at its outer end, extends about 0.5 mile WSW of the point and is marked within its extremity by a buoy.

Macdonald Shoals, with a least depth of 0.3m, extends in a dog leg from the shore about 0.5 mile ENE of Thomas Head. It is marked at its outer end by a buoy moored about 0.5 mile N of the headland.

Janvrin Harbour, available only to boats, lies on the SE side of Janvrin Island with Delorier Island lying across the entrance. Dorey Ledge, extending E from the island to Dorey Point, a distance of about 1.3 miles, bars the outer approach but has a buoyed channel with a depth of about 3.6m leading to Deep Cove. The inner bar, N of Delorier Island, is also buoyed but is narrow and shoal.

A public wharf extends 47m from the N shore.

4.10 Inhabitants Bay (45°34'N., 61°15'W.), entered between Turbalton Head, the W end of Rabbit Island, and Flat Head, about 2 miles to the W, affords sheltered anchorage in its entrance and in Seacoal Bay, at the NW end of the bay. The high cliffs of Carleton Head (Caribou Head), the N point of the cove, are conspicuous and form a good mark in the approach.

Anchorage.—Several designated anchorages are situated in the approach to and within Inhabitants Bay. Depths range from 8.7 to 21.9m, mud bottom, but caution is necessary as the bottom is rock in some places.

Anchorage is also available in Seacoal Bay in depths of 5 to 9m, mud. Small vessels can anchor in Turbalton Bay, within the W end of Rabbit Island, where there is limited but secure anchorage in a depth of 9.1m, mud.

Inhabitants Harbor, to the NE of Inhabitants Bay, is approached through a buoyed channel between Evans and Freeman Islands to the S and Indian Point to the N. This harbor provides good anchorage to small vessels in depths of 5.5 to 9.1m, mud, but local knowledge is recommended. The Inhabitants River can be navigated by small craft to the bridge at Chapel Road.

Approach to Lennox Passage

4.11 Lennox Passage leads between Isle Madame and Cape Breton Island, and provides a light draft channel connecting St. Peters Bay, at the NE end, with the S end of the Strait of Canso. A considerable part of the buoyed channel is so narrow and crooked that the passage is seldom used by vessels of any size. The least depth in the fairway is 4.9m, but vessels exceeding 3.7m in draft should not attempt the passage. The tidal currents are erratic and local knowledge is desirable even in small vessels. The rates are greatest round the spit off **Grandique Point** (45°36'N., 61°01'W.), seldom exceeding 2 knots, and at the bascule bridge, where the rates are about 2.5 to 3 knots. The flood tidal stream sets W and reaches its maximum rate about 1 hour after HW Point Tupper. The ebb stream sets E, the maximum rate about 1 hour 15 minutes after LW at Point Tupper. Slack water occurs about 1 hour 15 minutes before HW and LW at Point Tupper.

Caution.—A bascule bridge crosses Lennox Passage at Burnt Point. The width of navigable span is 18.3m. The

vertical clearance of the bridge when closed is 6.4m. A depth of 4.6m is located in the channel under the bridge.

The bascule bridge, which is hinged on the N side, provides a vertical clearance of about 31m beneath the outer end when open.

Traffic lights and white lights are shown from each side of the bridge; vessels should not approach the bridge unless a green light is showing. The use of an engine is recommended because of the currents.

The bridge is operated from mid-May to mid-October, beginning each day at 0830 hours; closing times are consistent with those at St. Peters Canal.

4.12 Michaud Point (45°34'N., 60°41'W.) is a wooded peninsula about 12m high which is joined to the mainland by a sandy beach. Small vessels occasionally seek shelter in Michaud Cove on the N side of the point, but although the holding ground is good, access is restricted and anchorage is unsafe during E and SE winds.

Michaud Ledges extend 1 mile offshore between Michaud Point and Red Point. These ledges dry in places and are usually marked by breakers. A light and whistle buoy are moored 1.75 miles SSE of Red Point.

Between Red Point and St. Peters Island, about 3 miles WNW, is a shallow bay with several coves. A fishing village extends along the shore of this bay for about 4 miles. At Martin Point, about 1 mile N of Red Point, there is a breakwater with a length of 498m.

St. Peters Island, connected to the mainland by a narrow drying spit, has a cove on the N side which affords anchorage to small craft. Haddock Rock, which dries 0.3m, lies about 0.3 mile off the NW side of the island.

Horsehead Shoals, Three Rocks, and Samson Rocks, all surrounded by shoal water, lie on the N side of the channel from 2 to 3 miles W of St. Peters Island. Buoys mark the SW side of these dangers.

4.13 St. Peters Bay (45°38'N., 60°53'W.), entered between Mark Point (Pointe Brulee) on the E side, and Double Head, about 1.8 miles to the W, provides sheltered anchorage to coasters and small ocean-going vessels. It also forms the S approach to St. Peters Inlet, paragraph 5.38, and St. Peters Canal, paragraph 5.39.

A buoyed channel, with a least depth of 5.5m, leads into St. Peters Bay. The channel within the bay in the approach to St. Peters Canal is deep and also buoyed.

A light is shown from a white tower on Jerome Point, on the E side near the head of St. Peters Bay. This light operates from May 1 to December 15. Four white storage tanks are situated on the shore close W of the entrance to St. Peters Canal.

Grande Greve Harbour, on the SE side of St. Peters Bay, provides sheltered anchorage in a depth of about 9.1m, mud, about 0.2 mile NW of the point in the middle of the head of the bay.

Brick Point (Brickery Point) and Sutherland Head, both on the W side of St. Peters Bay, can be identified by the cliffs of red clay in this vicinity. River Tillard, entered between Brick Point and Tillard Point, is available only to boats.

Lennox Passage

4.14 Cap Ronde (45°35'N., 60°53'W.) is the S entrance point of Lennox Passage and also the NE extremity of Isle Madame. It is formed of a red cliff about 19m high and bordered by shoal water extending about 0.4 mile E and along the coast to the S. The point appears as an island, but is connected to Isle Madame by a low rocky beach.

Petit Nez Shoal, a large rocky shoal area with a least depth of 5.5m, extends up to 2 miles E of Beak Point (Petit Nez), a rocky point of land about 1.3 miles S of Cap Ronde. The more irregular parts of this shoal break in heavy weather. A lighted whistle buoy lies on the E side of Petit Nez Shoal.

Bay of Rocks, entered SE of Beak Point, is entirely open to the E and affords no safe anchorage.

Gabion Shoal, the N extremity of which lies about 2 miles NW of Cap Ronde, has a least depth of 0.9m at Morris Rock on its W end.

The Goulet, a shallow bay, is entered E or W of Gabion Shoal and provides anchorage for small vessels. An L-shaped pier, with a berth 47m long on its outer face and a depth of 2.9m alongside, is situated at Poirierville, at the head of the bay.

Ouetique Island, about 3.5 miles NW of Cap Ronde, is precipitous, dark, and about 14m high. Philip Rocks, NE of the island, are awash at HW. A light, shown from April 1 to December 15, is shown from a skeleton tower situated on the S point of the island.

Cascarette Island, 0.5 mile W of Ouetique Island, is 27m high, wooded, with low cliffs at the E end, and with a sandy point at the S extremity. A rock, about 0.6m high, lies on a reef between Cascarette and Ouetique Islands.

Bourgeois Inlet, used extensively by fishing vessels, is approached between Philip Rocks and Bisset Island, and then through a narrow entrance having a least depth of 2.1m. There is a conspicuous spire in the town of River Bourgeois and the E side of the entrance is marked by a light exhibited from April 1 to December 15.

Although buoyed, the entrance is complicated by strong tidal currents with the greater rate on the flood tide.

A public wharf, with a berth 12m long and a depth of 3m alongside, is situated on the E bank of River Bourgeois, close within the entrance. The wharf is 20m long with a maximum depth of 4.3m; the outer end of the wharf is difficult to secure to at HW. There are several wharves in Bourgeois Inlet with depths of 1.5 to 2.7m alongside.

D'Escousse Harbor, entered about 0.8 mile SSE of Ouetique Island and close E of Bernard Island, is used mostly by fishing vessels. A buoyed channel, with a depth of about 2.1m, leads to the harbor where there is anchorage in depths of 3.7 to 4.6m. A government wharf, with depths of 2.4 to 4m alongside, lies in the S part of the harbor. The pier is used by yachts and fishing vessels; numerous mooring buoys are placed off the wharf.

Poulamon Bay, on the S side of Lennox Passage just E of Grandique Point, has three entrances formed by Eagle Island and Crow Island. Poulamon Islet, low and wooded, lies 0.2 mile S of Eagle Island. The best anchorage is in the E part of the bay and is frequently used by fishing vessels. The anchorage is restricted by a bar with a depth of 4m, lying in the middle of the channel. There is also safe anchorage for

moderate-sized vessels in 9 to 13m in the roadstead outside the bay. A light is shown from a skeleton tower with a red and white banded daymark on Hawk Island, an islet close N of Eagle Island joined to it by a spit.

Grandique Point (45°36'N., 61°01'W.), marked by a light, restricts the channel between it and Birch Island to a width of about 0.2 mile and is further restricted by Birch Shoal which lies nearly in mid-channel. As the fairway here is crooked and narrow, navigation is difficult and local knowledge is recommended.

To the W of Grandique Point the channel is marked by buoys. Ferry Reef, with a depth of 0.9m, lies about 0.3 mile W of Grandique Point and is marked on its S side by a buoy.

Two submarine cable areas are close W of Grandique Point. Cable signs reading "Cable Do Not Anchor" are positioned on the shore at each end of each cable crossing.

Tides—Currents.—The tidal currents in Lennox Passage turn about 45 minutes after both HW and LW on the shore, but they are often irregular. The flood tidal current sets to the W and the ebb tidal current to the E. The greatest rate is estimated to reach 2.5 to 3 knots in the vicinity of the bascule bridge at Burnt Point.

Caution.—The navigation of Lennox Passage is very intricate and local knowledge is necessary.

Strait of Canso

4.15 The Strait of Canso, which separates the mainland of Nova Scotia from Cape Breton Island, forms an important passage between the Gulf of St. Lawrence and Atlantic coast ports W of Canso. In addition, a deep-water oil terminal has been developed in the strait, near Port Hawkesbury, capable of accommodating large tankers.

The length of the passage through the strait, between Eddy Point and North Canso Light, is 15 miles. The least width of the strait is 0.45 mile near **Cape Porcupine** (45°38'N., 67°25'W.). A causeway, with a navigation lock at the E end, crosses the strait at Port Hastings. The navigable channel in the strait is buoyed throughout its length. The channel is deep, with less than 27.4m in a few places only. Ships should remain within the limits of the buoyed channel, as there are several rocks and shoals extending offshore in places, although both sides of the strait are generally bold.

Aspect.—The land on the W side of the strait rises abruptly to high ridges, exceeding 183m at Cape Porcupine, near the causeway. The E shore is not as high, except at the N end of the strait.

Range lights mark the length of the buoyed channel from Durrell Island to Peebles Point. Nearly all ranges are on reciprocal bearings and consist of lights mounted on triangular skeleton towers with fluorescent trapezoidal daymarks, usually red or white.

Pilotage.—Pilotage is compulsory in the Strait of Canso area within a line drawn from Cape Jack to Low Point in St. Georges Bay, and a line drawn from Fox Island to Green Island in Chedabucto Bay. Pilotage requirements must be passed by radiotelephone or radiotelegraph to Pilots Cape Breton at least 12 hours prior to the vessel's ETA at the pilot boarding station. ETA's must be confirmed or corrected 6 hours prior to the new ETA. Time used must be GMT.

Positions of pilot boarding stations for the Strait of Canso are, as follows:

1. Northern approach—all vessels—45°41.7'N., 61°28.3'W.
2. Southern approach:
 - a. Vessels over 223m in length—45°24'N, 61°01'W.
 - b. Vessels under 223m in length—45°29.5'N, 61°11.1'W.

The pilot boats are equipped with VHF radio and guard channel 17 at the N boarding position, and VHF channels 17 and 77 at the S boarding stations. During the period from December 11 to April 15, the S boarding station is also the pilot boarding station for vessels bound for the Miramichi River.

The master of a ship that is to depart or make a move within the compulsory pilotage area must report to Pilots Cape Breton 4 hours prior to such ETD. The time used should be local time. If GMT is used, it must be expressly stated.

Anchorage.—Due to the depth of water and the nature of the bottom (rock and gravel), anchoring in the strait is generally unsafe, except in certain places.

Caution.—Vessels should remain in the designated approach channel in Chedabucto Bay, within the limits of the channel buoys. The dangers previously described, particularly Cerberus Rock and other off-lying rocks and shoals, must be passed with care, especially in poor visibility.

4.16 Eddy Point (45°31'N., 61°15'W.) consists of two low sand and gravel strips enclosing a small pond. Eddy Spit, of sand and stone, extends about 0.2 mile NE of the point and has only 0.3m. Eddy Point Light is shown from a white square tower with a house close by.

A tower, with an elevation of 87m and marked by red obstruction lights, is situated about 0.5 mile SW of Eddy Point. Several working lights are situated at the base of the tower.

A breakwater situated 0.6 mile W of Eddy Point protects an L-shaped pier. The useful part of the pier head is 18m long, with a depth of 4.9m on the outside face and 4m on the inside. The outer end of the breakwater is reported to cover at HW.

Bear Head (45°33'N., 61°17'W.), about 2.3 miles NW of Eddy Point, is the NE entrance point to the Strait of Canso. Bear Island is connected to Bear Head by a shingle spit; Bear Reef, with a rock awash, extends close S of the island. A light is shown from a tower, with a red and white banded rectangular daymark, on Bear Head.

Ship Point (45°34'N., 61°20'W.) lies about 2 miles NW of Bear Head. Ship Rock, with a depth of less than 1.8m, lies on the edge of the channel about 0.2 mile NW of Ship Point.

Port Hawkesbury (45°37'N., 61°22'W.)

World Port Index No. 5870

4.17 Port Hawkesbury is situated on the N side of the Strait of Canso and, although only a small harbor in itself, is the marshaling area for the deep-water facilities between Point Tupper at the port entrance, and Wright Point about 2 miles to the SE.

Winds—Weather.—Prevailing winds are from the NW in winter and the SE in summer. Wind velocities exceed force 6 occasionally, mainly from the NW sectors.

Fog is frequent and persistent in the summer months. The sea effect is intensified and the fog is thicker in flows of warm moist air from the SE. The strait may at times be free of fog when Chedabucto Bay is heavily set in.

Ice.—The port is generally ice free for the greater part of the year as the causeway N blocks the ice coming down from the Gulf of Saint Lawrence.

Tides—Currents.—Mean spring tides rise 2.4m and mean neaps 2m. There is practically no current in the Strait of Canso due to the effect of the causeway.

Depths—Limitations.—The least charted depth on the range lines in the approach to the port is 27.4m.

The Statia Terminal at Wright Point is situated 0.75 mile NW of Ship Point. There are two berths, with a total length of 610m. Berth 1 has 25.6m alongside and can accommodate vessels up to 350,000 dwt. Berth 2 has 13.7m alongside and can accommodate vessels up to 50,000 dwt. The terminal is used as a storage and transshipment facility for crude oil or other fuels.

The Nova Scotia Pulp Company Wharf is situated at Madden Point, about 0.8 mile NW of Peebles Point. The wharf is 129m long with a depth of 7.9m alongside. There is a mooring dolphin off each end.

The gypsum wharf at Point Tupper, about 0.8 mile NW of Madden Point, consists of seven concrete piers connected by a cat-walk having a total length of 335m. There are depths of 5.8 to 9.4m alongside, but a depth of 6.4m lies immediately S of the berth. Vessels up to 214m in length can be accommodated. Another gypsum wharf, with a least depth of 5.5m alongside, is situated close S of Point Tupper.

The government wharf at Port Hawkesbury has an L-shaped head, 34m long, with depths of 4.9 to 5.8m alongside. Caution is necessary in the approach as Premier Shoal, in the entrance

to Ship Harbour and marked close N by a lighted buoy, has a depth of 4m on its outer part.

The government wharf at the S point of Murray Cove, directly opposite Point Tupper, has a total quay wall length of 435m, with depths of 5.5 to 5.9m alongside. There is a ro/ro loading ramp at the S end, but no permanent cranes are available.

Aspect.—The highest and most conspicuous object in the port area, in addition to the 183m high hills on the S shore, is the cooling tower of the power plant, painted red and white and marked by obstruction lights, about 0.5 mile E of Peebles Point. There are also two prominent red and white chimneys at the power plant.

The two chimneys at the Gulf Oil refinery, the highest at 107m and the other at 106m, both standing about 0.4 mile NE of Wright Point, are conspicuous. The flame tower, 62m high, is not particularly conspicuous from seaward.

About 2 miles W of Madden Point, there are two towers close together. The N tower is a microwave. The other is a television tower at an elevation of 310m.

Pilotage.—Pilotage is compulsory. Information on pilots is contained in this sector under the heading "Strait of Canso" in paragraph 4.15.

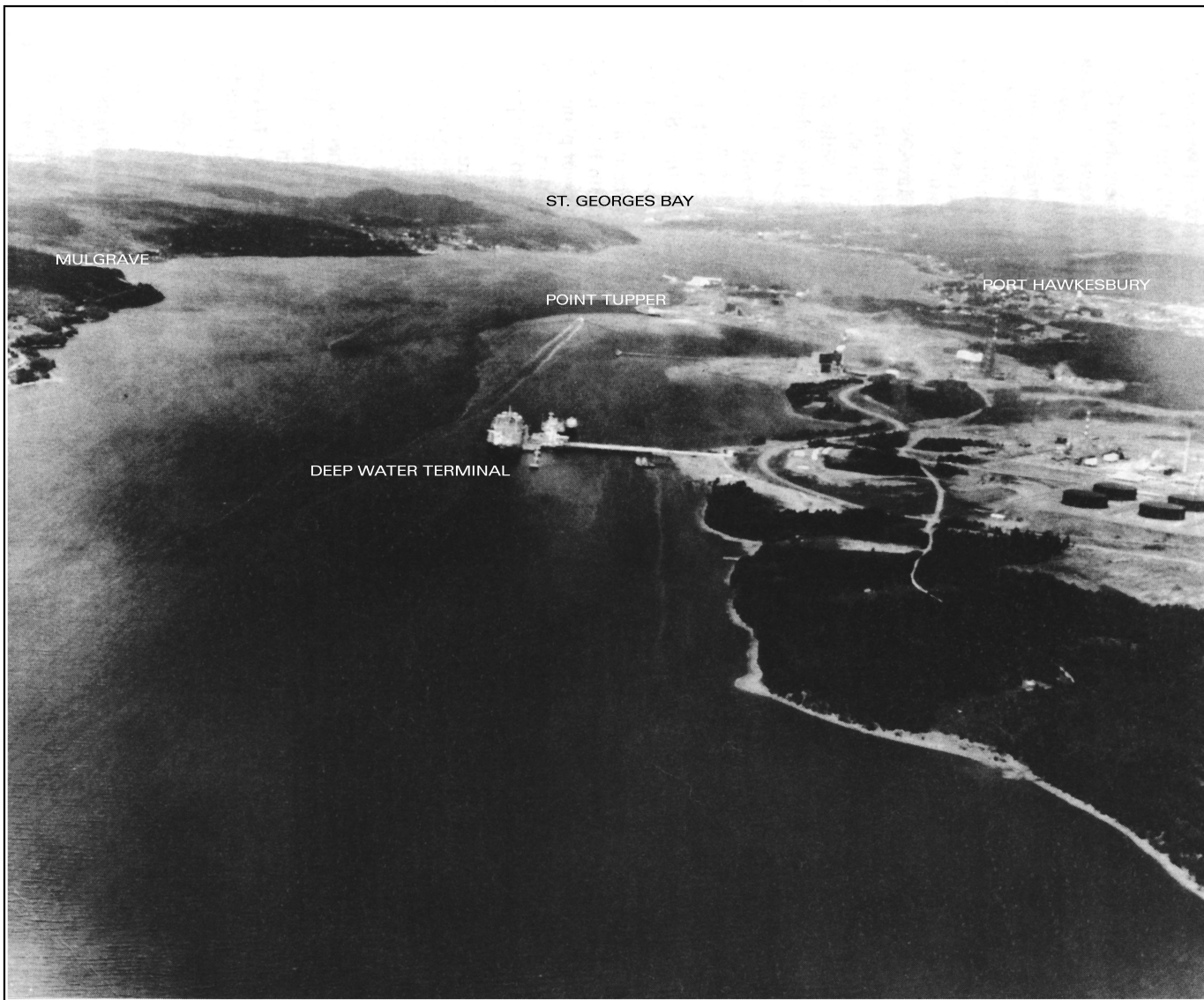
It was reported in 1993 that no tugs are in the area. Tugs are available from Halifax.

Anchorage.—The deep-water anchorages are charted in Chedabucto Bay and designated by letter.

The roadstead off Ship Harbour, outside Premier Shoal, has depths of 12.2 to 18.3m, sand, gravel, and mud. Except near the head of the harbor, where there is secure anchorage for small vessels in 6.1m mud, the port is open to NNW winds which cause a heavy, short sea.



Murray Cove—Government Wharf



Dept. of National Defence, Canada

Strait of Canso

Two anchorages, with depths of 59m, are situated about 0.5 mile W and SW of the Nova Scotia Pulp Company Wharf.

Caution.—Several power cables, pipelines, and other submerged facilities lie across or in the channel between Ship Point and Point Tupper and caution is advised.

Canso Causeway and Lock

4.18 The stone causeway, which carries railway track and roadways, closes the strait at the town of Port Hastings, about 3 miles NW of Port Hawkesbury. The causeway is lighted and there are overhead cables which cross the navigation lock with a vertical clearance of 45.7m.

The lock at the E end of the causeway allows vessels to navigate the strait free of current which would be caused by a 0.5m tidal difference. The lock, which is 249.9m long between the gates and has a minimum width of 24.4m, is crossed at its S end by a swing bridge carrying the road and rail tracks.

There is a stone mooring berth available at each end of the lock for vessels standing by for clearance. The S berth is 198m long, while the N berth is 213m long.

Depths—Limitations.—The lock is restricted to vessels with a maximum length of 224m and a beam of 23.2m. Drafts to 8.5m are handled on a regular basis, but vessels with a draft of less than 9.1m may enter the lock when tidal conditions are favorable in the opinion of the Canal Superintendent.

Aspect.—The Canal Superintendent's office on the lock wall is equipped with radiotelephone and will be contacted on VHF channel 11 when within 0.5 mile of the lock.

A traffic light on the swing bridge operates as follows: flashing red indicates preparation of bridge opening and during the time the bridge is in motion, fixed red indicates the bridge is fully closed, and fixed white indicates the bridge is fully opened.

Signal lights are shown from either end of the lock. Vessels enter the lock on the green signal or on the lockmasters instructions and leave on the lockmaster's instructions.

A light is shown from a post on the outer end of the mooring berth at either end of the canal.

Range lights, in line bearing 131.5°, exhibited from April 1 to December 1, are situated on the N end of the lock and mark the approach to the canal from N.

Range lights, in line bearing 144°, also exhibited from April 1 to December 1, are shown for the outer approach to the canal from St. Georges Bay. The front light is shown from a skeleton tower situated near the center of the causeway, and the rear from a similar structure with inverted daymark, on the shore nearly 1 mile SE.

Regulations.—Vessels over 30.5m in length are required to land linesmen on the lock wall to handle the ships lines prior to the bow of the vessel nearing the lock gates. At the discretion of the lockmaster, ships over 153m in length may be required to land three line handlers. Smaller vessels must land the linesmen before the bow of the vessel passes the mid-point of the lock. Linesmen are not supplied by the Canal Superintendent unless requests are made at least 6 hours in advance of transit. Such assistance will be at the vessel's expense.

A submerged power cable is laid from near the W entrance point of the SE end of the canal to a position near the middle part of the causeway.

The Canso Lock is closed to navigation during the winter months. It usually closes in January and opens in early April.

Caution.—Dixon Rock, with a least depth of 4.9m, lies in the S approach to the navigation lock, about 0.1 mile S of McKen Point. A lighted buoy is moored close WSW of this rock.

4.19 The Strait of Canso N of the causeway is deep and without dangers in the fairway. Vessels generally run the range lights from a position NE of North Canso Lighthouse.

North Canso Light (45°42'N., 61°29'W.) is shown from a white circular tower situated on the W side of the N entrance to the Strait of Canso.

Pilotage.—Pilots for the Strait of Canso board in the N approach, about 0.8 miles ENE of North Canso Light.

Additional information on pilotage and procedures is contained in this Sector under the heading "Strait of Canso" in paragraph 4.15.

Auld Cove, located N of the W end of Canso causeway, provides anchorage exposed to N winds in depths of 14.6 to 18.3m, mud. There is a government wharf, with a berth 6.1m long and a depth of 2.4m alongside, in the N part of the cove. The pier is 30m long, with a depth of 2.7m at its outer end. A pontoon is situated on the S side of the pier.

Caution.—Overhead power lines, with a minimum clearance of 49m, span the strait about 0.9 mile NW of the causeway.

St. Georges Bay

4.20 A Traffic Separation Scheme has been established in St. Georges Bay. The traffic routes are clearly defined on the chart and are compulsory in their use.

There are no dangerous shoals or hazards in the traffic lanes leading through the bay from the Strait of Canso to Northumberland Strait and to the entrance of River St. Lawrence. The least depth in the channel is 22.9m.

East Side of St. Georges Bay.—Between **Low Point** (45°43'N., 61°28'W.), on the E side of the N entrance to the Strait of Canso, and Long Point, about 5.5 miles N, shallow water extends in places up to 0.75 mile offshore. The land is high, and 0.5 mile inland it rises to the summit of a ridge, 278m high, which parallels the coast as far as Long Point. The only prominent feature along this stretch of coast is the spire of the church at Cregnish.

The public breakwater-wharf at Cregnish, 1 mile N of the church, is 68m long and dries on all faces.

From Long Point to Emersion Point (Big Rorys Point), about 7.5 miles N, shoal water with detached rocks and boulders lies up to 2 miles offshore.

Judique Shoals, with a least depth of 1.8m, lie up to 1.5 mile W of Campbell Point, nearly 3 miles N of Long Point. Judique Bank, a rocky area with a least depth of 8.5m, and foul ground all around it, lies about 3.5 miles NW of Campbell Point.

Depths—Limitations.—A government wharf, available only to boats, is situated at Walker Cove, about 0.5 mile S of Campbell Point.

Mackay Point, about 1.3 miles S of Emersion Point, is low with rocks off it. A government wharf, for boats, extends a short distance from the shore on the E side of the point. Kate Point lies about the same distance N of Emersion Point, and a small boat harbor is protected by two breakwaters on the N side of the bay formed between these two points.

Little Judique Harbour, located about 1 mile N of Kate Point, provides a small sheltered anchorage for boats between two breakwaters. The channel has a width of 11m and there is a depth of 0.9m in the approach.

A light is exhibited at the outer end of the N breakwater from a circular mast, 3.1m high.

Close off the entrance, which is 30.5m wide, is a rock which dries 0.9m. The S breakwater is in ruins.

4.21 Port Hood (46°00'N., 61°33'W.) (World Port Index No. 5890) is the only harbor along this part of the W coast of Cape Breton Island where shelter can be obtained by small ocean-going vessels. The waters of the harbor are protected from NW winds by Port Hood Island and Henry Island and the reefs between, and also by a breakwater, reported to be partly submerged at HW, between the former and the mainland.

The entrance to the harbor is narrowed by Spithead Shoal and Dean Shoal, which together provide some protection from SW swell. However, an SW gale will usually override the shoals and send in a heavy sea. Buoys mark the outer limits of these shoals and also the approximate area of deeper water within the harbor.

Depths—Limitations.—The T-shaped public wharf has an outer face 75m long with depths of 1.8m alongside. There are depths of 0.3 to 2.4m along the N inner face and 0.6 to 2.1m on the S inner face.

Aspect.—The town of Port Hood stands on the mainland opposite the N end of Port Hood Island. The church, near the middle of the town, is red with a spire and is somewhat conspicuous. A smaller white church, with a red spire, is situated about 0.2 mile S of the larger church.

Port Hood leading lights, in line bearing 007.5°, are situated on the NE side of the harbor. The front light is shown from a skeleton mast, 5.2m high, with a white daymark with a fluorescent red vertical stripe, situated on the outer end of the public wharf. The rear light is shown from a similar structure.

Port Hood Island light is shown from an aluminum skeleton mast on Smith Point.

Anchorage.—The best anchorage in Port Hood is in depths of 7.9 to 9.1m, sand, about 0.8 mile SSE of Smith Point.

Port Hood Island is surrounded by cliffs, except for a sandy beach on the head of the bay at the NW end. Gypsum cliffs are conspicuous at the NW extremity of the island. The church in the N part of the island is prominent.

Henry Island, which lies SW of Port Hood Island and 2.5 miles off the mainland, is formed of eroding cliffs which reach a height of 30.5m along the W shore. Shoal water completely surrounds the island and extends some distance off Fishery Point, the SE extremity, where there is a stranded wreck. The passage between the two islands is foul and should not be attempted without local knowledge. A light is shown on the



Henry Island Light

Cape Linzee (Black Point) (46°02'N., 61°33'W.), about 1.5 miles NNW of Port Hood, is the NW extremity of Cape Breton Island and the E entrance point of St. Georges Bay.

The NW coast of Cape Breton Island is continued later in this sector in paragraph 4.25.

4.22 South Side of St. Georges Bay.—Havre Boucher (45°41'N., 61°32'W.), situated about 1.5 miles W of North Canso Light, is only available to small craft. The entrance is narrow, but there is a least depth of 1.8m along the alignment of the leading lights. The channel is marked by buoys. The best anchorage is in the middle of the harbor in depths of 2.4 to 3.7m, mud. The government wharf on the W side of the cove, just within the entrance, has a T-head about 30m long with a depth of 3.4m off the outer end.

Range lights, in line bearing 194.5° and displayed from May 1 to December 15, are shown from white square towers on the SW shore of the harbor.

Cape Jack (45°42'N., 61°34'W.), 2 miles W of Harve Boucher, is a prominent headland with a red sandstone cliff, 18.3m high, facing to seaward. There are several ponds behind the cape.

Jack Shoal, with depths of less than 5.5m up to 2 miles N of Cape Jack, dries up to 0.9m at two rocky ledges about 0.5 mile

offshore. This shoal should be given a wide berth at all times. North Canso Light, which is obscured over Jack Shoal, kept in sight to the N, leads clear of this danger.

Cape Blue, of limestone, lies about 1.5 miles SW of Cape Jack with Barrio Head, a cliff of red sandstone, about the same distance farther SW. Little Tracadie Harbour, small and shallow, with a drying bar only available to boats at HW, lies between these two points and requires local knowledge.

Tracadie Harbour, enclosed by Delorey Island, is entered about 0.8 mile WSW of Barrio Head through a narrow buoyed channel which, in 1990, had a least depth of 0.9m in mid-channel and was reported to almost dry at LW. There is a depth of 4m in the middle of the harbor, which has many small coves and islets. A breakwater extends NW from the E side of the entrance.

Bowman Head, the NW extremity of Delorey Island, and Middle Head, the NE extremity, are both moderately high, cliffy, and bordered by reef.

Bowman Bank covers a large area NW of Bowman Head and extends up to 2 miles from shore. It has a least depth of 2.7m, rock, on its outer part and should be considered dangerous.

4.23 Pomquet Island (45°39'N., 61°45'W.) is wooded, 15m high, and composed of red sandstone. A drying reef extends off the E side and curves to the S towards Pomquet Point, leaving a boat channel between the island and the point.

Anchorage.—Pomquet Road is partially sheltered by the island, reefs, and by a breakwater, 187m long, extending from Pomquet Point. The best anchorage is in a depth of 7.3m, sand, with the S end of Pomquet Island bearing 353° at a distance of 0.5 mile. Larger vessels anchor farther out, about 0.8 mile SE of the middle of Pomquet Island, but both these anchorages are exposed to NE gales.

Bayfield Wharf, on the SE side of Pomquet Point, is L-shaped and 108m long. The berth at the outer end is 16m long, with a depth of 3m alongside. A breakwater extends close N of the wharf.

Pomquet Island Light is shown from a white square tower on the NE end of the island.

Pomquet Harbour, entered about 1.3 miles WSW of Pomquet Point, is very shallow and available to small craft only. The shifting sand bar across the narrow entrance has only 0.6m, but the channel within has general depths of 1.2 to 3.7m for a distance of 2 miles.

Monk Head (45°40'N., 61°50'W.), a conspicuous cliff of white gypsum, 14m high, is bordered by shoal water which extends up to 1.5 miles to the NE. A rocky head, with a depth of 9.8m, lies just over 2.5 miles N of the head.

4.24 West Side of St. Georges Bay.—Antigonish Harbour (45°41'N., 61°53'W.), an extensive shallow estuary, lies in the SW corner of St. Georges Bay. A partly drying bar obstructs the narrow entrance, but a channel with a least depth of 0.9m was reported to be buoyed over the deeper part. Within the bar, the channel leads between mud flats and has depths of 1.8 to 11m. The shores are broken up into many coves, and there are several small islets. The tidal currents in the entrance seldom exceed 2 knots except in the spring snow run-off.

The town of Antigonish is situated at the head of the SW arm, about 6.5 miles from the entrance.

Ogden Pond, about 1.5 miles N of the entrance to Antigonish Harbour, is separated from the bay by a bar over which there is a narrow boat channel with a depth of 0.4m. There are depths of about 3m in the pond. There are conspicuous white cliffs close N of the entrance to Ogden Pond.

McIsaac Rock lies nearly 0.3 mile offshore, 1 mile NE of Ogden Point. There is a depth of 3.7m on this rock and it is sometimes marked by breakers.

Cribbean Head, a triangular shaped point with low cliffs on its NE side, is located about 4 miles N of the entrance to Antigonish Harbor. There is a government wharf, 107m long, with depths of 1.2 to 1.8m along the W face. There is a sea wall and boulders on the E side of the wharf. A basin, 79m by 91m and dredged to a depth of 1.5m, exists on the W side of the wharf.

Cribbean Head main light is shown at an elevation of 20 from a triangular skeleton mast, 3m high, situated on the cliff.

A light is shown from a red skeleton tower standing on the outer end of the wharf at Cribbean Head.

Ballantynes Cove, on the S side of Cape George, is located about 6 miles N of Cribbean Head. An L-shaped government wharf extends about 162m and had reported depths of 1.2 to 3m alongside. A spur about 38m long, with depths of 2.1 to 3m alongside, extends from the W side of the wharf. Anchorage can be obtained in the cove, but the holding ground is not good.

Cape George (45°52'N., 61°54'W.), a bold precipitous headland, rises to an elevation of 183m about 3 miles to the SW. Several offshore submerged rocky depths lie in the vicinity of the cape.

Cape George Light is shown from a white tower situated at an elevation of 123m close within the cape.

Caution.—Vessels are cautioned not to round Cape George at distances of less than 1 mile, as the soundings give little or no warning of the proximity of danger.

Northwest Coast of Cape Breton Island

4.25 The coast from Cape Linzee to Cape St. Lawrence, a distance of 73 miles, is high with long stretches of precipitous cliffs rising close inland to a ridge with deviations up to 457m. The cliffs are broken at intervals by ravines and gullies where a few small rivers and streams enter the sea. Small villages and resort towns are scattered along the shore, and there are a few small shallow harbors, the largest being Cheticamp, midway between the two capes.

Tides—Currents.—There is a general set toward this coast at most times. The currents are not constant and usually irregular in rate, with the speed generally not exceeding 1 knot in summer.

Caution.—Vessels should keep a good offing along this coast, especially in autumn and early winter, when the prevailing NW winds cause a heavy onshore sea and swell.

Mabou Harbour (46°05'N., 61°28'W.) is located at the mouth of the Mabou River, about 4.5 miles NE of Cape Linzee, and is entered through a channel with a depth of 0.6m. The ruins of breakwaters lie on either side of the entrance and a drying sandbank extends for 0.5 mile just within the entrance on the S side.



Cape George Light

The harbor within the entrance is buoyed in places and has general depths of 9.1 to 14.6m near the center. Boats can ascend on the tide to the town of Mabou, about 3.3 miles within, but the river dries above this distance. Local knowledge is recommended for entering. The latest local knowledge is imperative for safe navigation entering due to silting in the channel.

A public wharf, close inside the entrance of the N side, consists of a basin protected by two wharves. There are depths of 0.3 to 3.7m alongside the outside faces and 0.3 to 1.8m along the basin faces. Depths may be reduced by silting. A launching ramp lies near the E side of the basin.

Another wharf lies about 0.7 mile SE on the S side of the harbor. It is 21m long, with a depth of 3.7m at the outer face.

Mabou Highlands rise to an elevation of 363m about 7 miles NE of the Mabou River. The coast along this stretch, including

Slight Point and Cape Mabou, is precipitous with heights of over 183m less than 0.1 mile inland at some places.

The town of Inverness, about 11 miles NE of the Mabou River, is a terminus of the Canadian National Railway and forms a good mark from seaward. Range lights, in line bearing 124°, mark a 12m wide channel with a safe draft of 0.9m leading into a small craft harbor just S of Inverness.

4.26 Marsh Point (46°18'N., 61°16'W.), about 5 miles NE of Inverness, is formed of low cliffs and backed by a plateau about 91m high. At Broad Cove Marsh, about 0.8 mile S of the point, there is a government breakwater, 123m long.

Margaree Island (Sea Wolf Island) (46°21'N., 61°16'W.), the S end of which lies about 3 miles N of Marsh Point, is composed of precipitous sandstone and rises to a height of about 79m. The shore of the island is fringed by submerged rocks, and much of the time a heavy swell rolls in from nearly

any direction. There is a strong tidal flow around the island and between it and the mainland, and anchorage in the area is insecure with poor holding ground.

The channel between Margaree Island and the mainland has depths of 9.1 to 21.9m, with rock bottom and occasional sand and gravel.

A light is exhibited on the summit of the island. The light may be obscured by cliffs when a vessel is dangerously close to the island.

Margaree Harbour (46°26'N., 61°07'W.) (World Port Index No. 5910) lies at the entrance to the Margaree River, about 10 miles NE of Marsh Point. It is a shallow basin which, with the exception of a narrow channel, almost completely dries. The entrance is protected by breakwaters on either side and the least depth on the range line leading through the channel is 1.8m. Lights are shown, from May to December, from the heads of the E and W breakwater.

Silting occurs in the channel and basin and local knowledge is recommended. Buoys mark the entrance and inner channels.

Tides—Currents.—Margaree River is influenced by spring tides which rise about 1.4m. At such times, and especially on the ebb, the currents reach 4 knots in the entrance.

Depths—Limitations.—The government wharf on the S side of the entrance is about 26m long with a depth of 1.8m at its head. The fishermen's wharf in the NE part of the harbor has about 1.2m alongside. Depths in the approach vary from 0.6 to 3.7m.

Aspect.—Range lights are shown from the S side of the entrance and lead in through the channel. These lights are in operation from May 1 to December 15. A spar buoy marks either side of the range line, about 0.1 mile from the entrance breakwater.

Caution.—The channel is known to shift and the range line may not indicate the deepest water. The latest local knowledge is imperative for safe navigation.

Friars Head (46°31'N., 60°04'W.), lying about 5 miles NNE of Margaree Harbour, has a small deep cove on its N side where there is the ruins of a breakwater. A rock, with a depth of less than 1.8m, lies close N of the head. At Friars Head Boat Harbor, a fishing station about 2 miles S of Friars Head, there is a short breakwater protecting a boat anchorage and a landing stage with a depth of 1.2m at its outer end.

Grand Etang Harbor (46°33'N., 61°03'W.), 2 miles NE of Friars Head, is a secure harbor for small craft and fishing boats that is protected by two entrance piers. There is a depth of 1.8m in the approach and a dredged basin 167m long and 91m wide inside, with 3.4m of water. The channel and basin are subject to silting and local knowledge is recommended.

4.27 Cheticamp Harbor (46°38'N., 61°01'W.) (World Port Index No. 5920), lying about 5 miles NE of Grand Etang Harbor, is located between Cheticamp Island and the mainland. It is only suitable as an anchorage for small oceangoing vessels, coasters, and fishing boats. Silting takes place, and although there are charted depths of 3.7 to 4.6m in the channel, local knowledge should be obtained before entering.

Ice.—The harbor is normally open from mid-April to early January. Ice usually forms about the middle of January, and may restrict navigation up to the middle of May.

Tides—Currents.—Spring tides rise 1.4m and neaps rise 1.1m. Currents in the harbor are slight due to the causeway at the S end.

Depths—Limitations.—The T-shaped government wharf is about 60m long with a depth of 4.6m alongside its outer face. Several other wharfs are available with depths up to 3.7m alongside, but some are in disrepair.

Aspect.—The harbor is entered through a buoyed channel. A set of range lights and a directional light aid in the approach to the pier.

The outer range lights, shown from Caveau Point, E of the N end of Cheticamp Island, and in line bearing 108°, lead between the island and Caveau Shoal. Both these lights are shown from white towers. They are visible only when in alignment and are maintained from May 1 to December 15. The directional light for the inner channel is shown from the E side of the harbor.

A conspicuous tower, with an elevation of 473m and marked by red obstruction lights, stands on the heights about 3.3 miles SE of La Pointe, the SSW extremity of Cheticamp Island.

Anchorage.—The most sheltered anchorage is off the government wharf in 7.3m, but there is little swinging room and it can be unsafe in strong NE winds.

Caution.—A vessel should keep slightly W of the inner range line when passing the shingle spit, 0.75 mile SSW of Caveau Point, to avoid a 2.1m shoal close off the extremity of the spit. Local knowledge is required to proceed in via the buoyed channel.

The range lines and buoys are altered to conform with the channel.

A wreck lies close off the W shore at a depth of 0.3m, opposite the public pier.

4.28 Cheticamp Island (46°37'N., 61°02'W.), located about 30 miles SW of Cape St. Lawrence, is joined to the mainland by a narrow beach of sand and shingle at its S end. At La Pointe, the SW extremity, there is a government wharf which forms a sheltered basin about 49m wide with a depth of 1.5m. The N part dries and a small breakwater lies 91m SW, which provides additional protection.

The coast of Cheticamp Island is a perpendicular or overhanging cliff which is nearly as high as any other part of the island, the maximum elevation of which is 61m. Since these cliffs are composed mostly of sandstone, they are constantly being undermined by the sea.

Enragee Point Light is shown from a white octagonal tower on the NW extremity of Cheticamp Island.

A light is shown from a red skeleton tower on the outer end of the government wharf at La Pointe.

Anchorage.—There is anchorage, during the summer, E of La Pointe in a depth of 7.6m. The spit extending from the point affords some shelter, but W winds send in a heavy sea. The holding ground is loose sand and gravel, and the anchorage is unsafe after August.

Caution.—Jerome Ledge, with a least depth of 0.6m, rock and boulders, lies about 2 miles NE of Enragee Point, with outcrops having depths of less than 5.5m extending over 1 mile offshore.

About 0.2 mile SSW of the SW extremity of Caveau Shoals, rocky patches, with a depth of 5.5m, is located about 0.7 mile ENE of Enragee Point Light. Vessels approaching the area in poor visibility receive little warning from soundings, as Caveau Shoals are steep-to on their seaward side.

A spit, with a least depth of 1.5m, rock, extends about 0.5 mile SSE of La Pointe.

4.29 Red Cape (Cap Rouge)(48°22'N., 70°32'W.), about 4.3 miles NE of Caveau Point, has an L-shaped wharf, 82m long, with a 20m outer head having a depth of 2.4m alongside the outer face. The outer face was in a state of disrepair, and the wharf was not being used.

Pleasant Bay (46°50'N., 60°48'W.), an open bight in the coast, is formed between Mackenzie Point to the S and Red Cape, about 3.5 miles NE.

The entrance channel, with a reported depth of 2.4m, passes between two breakwaters 40m apart, each 97m long, and between two piers, 12m apart, leading into the boat basin. Lights are exhibited from the head of each breakwater. The wharf at this harbor is L-shaped and 25m long across the outer face.

Cape St. Lawrence (47°03'N., 60°36'W.), the N point of Cape Breton Island, is composed of slate rock. The only

landing place is on the W side, where there is a brook and a steep stony beach. The E side of cape is high and cliffy with several rocks close offshore. A light is shown from a mast on the cape.

Bear Hill, a remarkable sugarloaf, 247m high, rises close to the coast, about 0.8 mile SE of Cape St. Lawrence.

High Capes, a series of steep cliffs that rise to a height of 316m only a few hundred meters inland, lie about 4 miles SW of Cape St. Lawrence and form a good mark from offshore.

A conspicuous rock slide is visible among the heights about 3 miles SSW of High Capes.

Cape North (47°03'N., 60°25'W.), lying about 7.5 miles E of Cape St. Lawrence, is the bold and rocky N extremity of Cape Breton Island and rises abruptly to an elevation of 305m. It is generally considered as the N end of the island because of its proximity to seaward, however, it lies slightly S of the parallel of Cape St. Lawrence. Cape North is more fully described in paragraph 5.3.

St. Lawrence Bay lies between Cape North and Black Point, about 5 miles to the W. The bay affords temporary open anchorage in summer, when strong N winds are infrequent, in 16.5 to 18.3m, sand and rock, about 0.5 mile offshore. Vessels should leave the bay immediately if the wind shifts from seaward.